What is claimed is:

1. A transition for transmitting a mm-wave signal from one plane to another, said transition comprising:

first and second transmission lines on parallel planes;

a third transmission line orthogonal to said first and second transmission lines, wherein either said first and second transmission lines are suitable for transmitting a TEM mode signal and said third transmission line is suitable for transmitting a waveguide mode signal, or said third transmission line is suitable for transmitting a TEM mode signal and said first and second transmission lines are suitable for transmitting a waveguide mode signal; and

first and second transducers, said first transducer coupled between said first and third transmission lines, said second transducer coupled between said second and third transmission lines, each of said transducers being suitable for converting a signal between TEM and waveguide modes.

2. The transition of claim 1, wherein said third transmission line is a waveguide.

3. The transition of claim 2, wherein said first or second transmission line is a microstrip.

4. The transition of claim 2, wherein said first and second transmission lines and said first and second transducers are disposed on first and second mm-wave boards, respectively.

5. The transition of claim 4, wherein said mm-wave boards are overlapping.

6. The transition of claim 5, wherein said mm-wave boards are separated by a distance of at least 10% of an operating signal wavelength.

7. The transition of claim 4, wherein at least one of said mm-wave boards comprises electrical circuitry.

8. The transition of claim 1, wherein said first transducer converts a signal from a TEM mode to a waveguide mode and said second transducer converts a signal from a waveguide mode to a TEM mode.

9. The transition of claim 8, wherein said waveguide mode is a rectangular waveguide mode.

10. The transition of claim 9, wherein said rectangular waveguide mode is a TE_{10} mode.

11. The transition of claim 1, wherein each transducer comprises:

a transmission portion connected to the respective transmission line of the transducer;

a waveguide portion configured to facilitate the propagation of a waveguide mode signal therethrough in a plane orthogonal to the transmission portion; and

a conversion portion electrically connected between said transmission portion and said waveguide portion, said conversion portion being configured to convert a signal between a TEM mode and a waveguide mode.

12. The transition of claim 11, wherein said conversion portion comprises at least one fin perpendicular to the direction of propagation of the TEM mode signal.

13. The transition of claim 11, wherein said transmission portion, said waveguide portion, and said conversion portion share a common substrate.

14. The transition of claim 13, wherein said waveguide comprises a conductive barrier defined in said substrate.

15. The transition of claim 14, wherein said conductive barrier is a metallic wall.

16. The transition of claim 14, wherein said conductive barrier is a perforated metallic wall.

17. The transition of claim 1, wherein said first and second transducers are identical.

18. The transition of claim 2, wherein said waveguide is a hollow waveguide.

19. The transition of claim 18, wherein said waveguide is a rectangular waveguide.

20. The transition of claim 2, wherein said waveguide has a length of at least 0.25 mm.

21. The transition of claim 2, wherein said waveguide comprises a metalized dielectric filler.

22. The transition of claim 11, wherein said waveguide comprises a metalized dielectric filler having an impendence which matches that of said waveguide portion.

23. The transition of claim 2, further comprising a support plate between said first and second substrates and through which said waveguide passes.

24. The transition of claim 23, wherein said support plate is rigid.

25. The transition of claim 24, wherein said support plate is metal.

26. The transition of claim 24, wherein said support plate comprises a borehole to accommodate said waveguide.

27. The transition of claim 24, wherein said support plate is at least 1mm thick.

28. An ACC system comprising the transition of claim 1.

29. A method for transmitting a mm-wave signal from a first plane to a second plane using a transition, method comprising:

transmitting a mm-wave signal along a first transmission line in a first plane;

converting said signal from one mode of either a TEM mode or a waveguide mode to the other mode of either said TEM mode or said waveguide mode using a transducer;

transmitting said signal along a third transmission line orthogonal to said first transmission line in said other mode to a second plane parallel to said first plane;

converting said signal back to said one mode; and

transmitting said signal in said one mode along a second transmission line in said second plane.

30. The method of claim 29, wherein said signal is between about 65 to about 85 GHz.

31. The method of claim 29, wherein said reflective loss is better than 15 dB and the insertion loss is better than 0.6 dB.

32. The method of claim 29, wherein said third transmission line is greater than 10% of the wavelength of said signal.

33. A method of manufacturing said transition, said method comprising:

providing a support plate;

boring a hole in said support plate;

inserting a waveguide filler in said hole;

providing first and second mm-wave boards, each board comprising an integrated transmission line and a transducer having a waveguide portion; and

affixing said first and second mm-wave boards to each side of said support plate such that said transition lines are orthogonal to said waveguide and that said waveguide is axially aligned with said waveguide portion of each transducer.